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LATIMER IP LAW, LLP			PRIETO, BEATRIZ		
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HERNDON, VA 20171			2142		

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Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicatio	n No.	Applicant(s)			
Office Action Summary		10/065,52	9	UYSAL, SEZEN			
		Examiner		Art Unit			
		Prieto Beat	riz	2142			
Period fo	The MAILING DATE of this communication in Reply	appears on the	cover sheet with the c	orrespondence ad	ldress		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status							
 Responsive to communication(s) filed on 14 April 2006. This action is FINAL. 2b) This action is non-final. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. 							
Disposition of Claims							
5)	Claim(s) 1-41 is/are pending in the application of the above claim(s) is/are without claim(s) is/are allowed. Claim(s) 1-41 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and on Papers The specification is objected to by the Example of the drawing(s) filed on 27 October 2002 is/at applicant may not request that any objection to the cost of	drawn from condomination delection received acceptable acceptable drawing(s) because the drawing received acceptable acc	equirement. pted or b) objected be held in abeyance. See bed if the drawing(s) is objected	e 37 CFR 1.85(a). jected to. See 37 C	FR 1.121(d).		
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some col None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.							
2) Notic 3) Inform	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB. r No(s)/Mail Date		4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate	O-152)		

DETAILED ACTION

- 1. This communication is in response to Amendment filed April 14, 2006, claims 1-41 have been examined.
- 2. Amendments to at least claims 1 and 10 obviated previous objection, and it is hereby withdrawn.
- 3. Regarding amendments to claims 1-30, applicant has indicated that this amendment solely corrects typographical and grammatical errors, and thus does not alter the scope or subject matter of the claims (p. 12 of remarks). The amendment filed April 14, 2006 has been reviewed. Specifically, regarding the amendment to the claim clause "a network node with at least two network interfaces to "at least two network interfaces" it does not seem clear where was a typographical and grammatical error, and thus how does this amendment not alter the scope or subject matter of the claims, applicant is urged to point out where exactly was the typographical and grammatical error in this clause.

Regarding the claim clause "capturing data packets through the network interfaces" changed to "a processor that captures data packets" it does not seem not clear where was a typographical and grammatical error, and thus how does this amendment (i.e. addition of a processor that captures) not alter the scope or subject matter of the claims, applicant is urged to point out where exactly was the typographical and grammatical error in this clause.

Regarding the claim clause "modifying DNS packets according to the user's geo-location to direct the user to the optimum server" changed to "modifies DNS packers according to the user's geo-location to direct the user to the optimum server within the network service", it is quite not clear where was a typographical and grammatical error, and thus how does this amendment (i.e. the optimum server within the network service) not alter the scope or subject matter of the claims.

4. Regarding claim terminology/interpretation for the purposes of examination: (i) claimed "DNS messages", "data packets" and "DNS packets" are broadly interpreted as data, not required to refer to the same data. The "optimum server within the network service" in claim 1 for the purposes of examination has been broadly interpreted as a server that provides the network service associated with the captured packets.

5. Claim 31 is objected to because of the following noted minor informality: "the network backbone" seems to lack antecedent basis. For the purposes of examination it has been broadly interpreted as a network, same interpretation is applied to the recited "a network backbone" on claim 34.

Claim Rejection under 35 USC §103

- 6. Quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.
- 7. Claims 1-13, 15-27, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Optimizing ISP Networks and Services with DNS Redirection, Alteon Web Systems, Inc., White Paper, Aug 1999, p. 1-13 (referred to as Alteon hereafter) in view of An architecture for WAN Load Balancing, Jingsha He, IEEE, 0-7803-6283-7, 2000, p. 1169-1173.

Regarding the apparatus claim 1 and the method claim 17, Alteon teaches an apparatus (e.g. node shown of Figs. 1-5) comprising:

an ISPs PoP/web switch (processor) with at least two network interfaces comprising switch ports (p. 8 or front-end processor on p. 11) interconnecting via a data path subscribers computers to the Internet and to DNS servers as shown e.g. on Fig. 1 (p. 2), the ISPs Pop/web switch comprising instructions that when executed by a processing implement the functions performed by the ISP PoP/web switch, functions including;

examines "analyzes "intercepted "captures" data packets through the network interfaces (p. 2) including processor-intensive packet examination (p. 12 including RISC processors of Fig. 9);

manipulate (modify) packets (p. 3) including processor-intensive packet examination (p. 12 including RISC processors of Fig. 9); and

direct the user to the optimum server (p.13); although Alteon teaches manipulating the packets according to the user's location to direct the user to server, he does not explicitly teach that the server is an "optimum server" location for providing the network service.

He teaches a manipulating to reflect (modifying) the response to reflect the optimum server selection (left column p. 1172), a selector having routing functions and a server making use of DNS (right column p. 1170);

the selector selects for a user's DNS request through DNS redirection the best (optimum) server (p. right column 1170); specifically,

selects the best "optimum" location of a network service on the Internet according to the user's geo-location, that is the best is select based on the relativity between the geographical locations between the servers and the user, where the server closest to the user is selected (right column, p. 1171); the optimum server is determined based on the geographical location of the servers to the user (left column, p. 1171); and returning the address in said reply to the user (left column, p. 1172) by manipulating to reflect (modifying) the response to reflect the optimum server selection informed to the user (left column p. 1172).

It would have been obvious to one of ordinary skill in the art at the time the invention was made given the teachings of Alteon for redirecting traffic in a client-server environment, the teachings of He would readily apparent. One of ordinary skill would be motivated to given the suggestion of configure a node having routing functions to operate making isolate the subscriber's DNS server configuration configuring the server to capture all DNS service request and configured to direct traffic to a specific site close to the user, to utilize the teachings of He, including the functions disclosed in the routing component, because in doing so, the node can be configured to take in account other dynamic factors beside the closest server which can be combined to include network traffic conditions and fault tolerant reliability measures as suggested by He.

Regarding claim 2, the optimum location is the geographically the closest one (Alteon: p. 4 and 13).

Regarding claims 3-4, wherein the optimum location is that of geographically the closest server which has been determined serving user's request "healthy and actively serving" as those that "timely and correctly" response to users request (Alteon: p. 2, 6 and 8).

Regarding claims 5-6, a preferred location chosen by a human operating the ISP (Alteon: p. 5) and the location of a network service is one of the locations of many mirrored sites (servers) that are connected via a network (Alteon: p. 5).

Regarding claims 7-8, wherein a network service is an Internet network service and wherein a network service is an enterprise network service (Alteon, Figs. 1-5).

Regarding claim 9, the optimum process selection is made by a set of rules to the selection process (He: selection criteria, p. 1171).

Regarding claim 10, this method claim corresponds to the apparatus claim 1, discussed above, same rationale of rejection is applicable.

Regarding claim 11, wherein "transparently" altering DNS messages is to capture and to modify the content of the DNS messages (He: left column, p. 1172), the node configured to operating at OSI model's second layer, the user is not aware of the operations occurring on said network node (Alteon: p. 11).

Regarding claim 12, the network node is a device (e.g. a switch) attached to networks, captures every packet detected on any of it interfaces via at least two network interface switch ports (Alteon: p. 8 interconnecting via a data path subscribers computers to the Internet and to DNS servers as shown e.g. on Fig. 1, p. 2).

Regarding claim 13, examine the packet, using layer-2 (Media Access Control (MAC) addresses and Layer-3 (IP addresses) (Alteon: p. 2).

8. Claims 14 and 28 are rejected under 103(a) as being unpatentable over Alteon in view of He in further view of Macpherson et. al. US 6,845,400 (Macpherson hereafter).

Regarding apparatus claims 14 and method claim 28, wherein the network node determines the source IP address of the captured DNS message and consults its previously built database to determine the geographical location of the user that has sent the DNS message.

Macpherson teaches the use of a table with user location information, where the user's location is derived from the content of the user's request in conjunction with the database(s) comprising a mapping between the IP address to the location. Upon user's request the table is interrogated to retrieve the user's location.

It would have been obvious to one of ordinary skilled in the art at the time the invention was made given the suggestion of Alteon for providing services based on the user location, the teachings of Macpherson for accessing location based Internet services would have been readily apparent. One would be motivated to combine the teaching of Macpherson with Alteon because in doing so the methods makes

use both of information already readily available and of the existing infrastructure to provide locationbased services and the method may be implemented without active user initiation.

Regarding claim 15, wherein the network node modifies the captured DNS messages according to the geo-location of the DNS user to inform the user with the IP address of the optimum server (He: manipulating to reflect (modifying) the response to reflect the optimum server selection informed to the user, left column p. 1172).

Regarding claim 16, the network node forwards every packet, which is not a DNS message to the other interface (Alteon: p. 2).

Claim 16 discussed above.

Regarding claims 18-30, these claims are the same as claims 2-10 and 13-16, same rationale of rejection is applicable.

9. Claims 31-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alteon in view of He in further view of Parekh et. al. (US 6,757,740) (referred to as Parekh hereafter).

Regarding claim 31, at least two servers at different locations (called "geographically different") in the network, e.g. portals that support mirror sites across the country or world, using a plurality of distributed DNS servers for locating close-by mirror sites (Alteon p. 4) using the DNS server to access servers on the Internet by resolving the Internet hostnames to IP addresses (p. 6);

at least one DNS server (Alteon Figs. 2-3 and p. 1) from the plurality of distributed DNS servers; and a device "hardware appliance" (Alteon: ISPs PoP of Fig. 1) configured to

analyzing all DNS requests directed to a particular DNS server (Alteon p. 2) including intercepting all DNS request (Alteon p. 3),

determines the geographically closest server providing the service requested by the user (Alteon p. 5), directs the user to the closest site from mirrored content providing the network service (p. 13) by mirrored servers that are connected via a network (p. 4);

also modifying the DNS response from the server (Alteon: p. 3 and Fig. 2),

and modifies the DNS to provides/returns to the user the IP address of the best server (He: p. 1169), the best server being selected based on a variety of factors including the geographical location of the server to the user (He: p. 1171), the best server being the geographically closest server that provides the requested service (He, p. 1171), the best server selected is returned in a DNS rely to the user by manipulating the DSN reply message (He: p. 1172);

wherein the hardware appliance is located between the particular DNS server and the network "backbone" (Alteon: Fig. 3); however the above-mentioned prior art does not explicitly disclose the use of stored information associating geographical locations with IP addresses.

Parekh teaches a method 100 of operation for a system 10 including at least a database of IP addresses and the respective geographical locations associated with those IP addresses (column 3, lines 2-31, 38-41, 43-46), specifically, determining and collecting the determined actual geographic location associated with IP addresses (column 4, lines 46-67) and storing in a location database (20 of Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Parekh for delivering information based on geographical locations as well as network conditions because in doing so it will overcome the prior art deficiency noted by Parekh of no association or link between the IP address or domain name and current referencing to the extensions of domain names for determining location which can be deceiving and inaccurate. One would be motivated to enable Alteon's system with a data the stored geographical locations of any host including the intermediate host from one host to another storing this information either in a central database or local, where the geographic location information may be used as indicated by Parekh in the routing of Internet traffic and route Internet visitors to the closest web server from among a plurality of web servers using any systems or methods to determine the geographic location or provide further information that will help in ascertain the geographic location of an IP address, as suggested by Parekh.

Regarding claim 32, wherein the hardware appliance determines the geographically closest server by consulting the database (Parekh: column 5, lines 42-column 6, line 6)

Regarding claim 33, modifies a general DNS request for a server providing a desired service by re-writing the request to request a specific geographically located server that provides the desired service (Alteon: right side of figure 2 of page 3, right side of Figure 3 on page 4, and page 12), and modifies the DNS response to match the original general DNS request (Alteon Fig. 2).

Regarding claims 34-36, the hardware appliance is located between a DNS server and a network backbone (Alteon Fig. 4); wherein the system comprising multiple hardware appliances (Alteon p. 1); wherein each DNS server has associated with it a hardware appliance (Alteon: p. 1-2).

Regarding claim 37, identifying the geographical location of a server serving the user (Parekh (column 3, lines 2-31, 38-41, 43-46); and modifying the DNS request to request an IP address of a server that provides the requested service, and that is located at an optimal geographic location with respect the user associated with the DNS request (Alteon: right side of figure 2 of page 3, right side of Figure 3 on page 4, and page 12, He: manipulating to reflect (modifying) the response to reflect the optimum server selection, see left column p. 1172, selects for a user's DNS request through DNS redirection the best "optimum" server, see p. right column 1170, selects the best "optimum" location of a network service on the Internet according to the user's geo-location, that is the server closest to the user, see right column, p. 1171).

Regarding claim 38, modifying a DNS response to match the original DNS request (Alteon: Fig. 2).

Regarding claim 39, receiving from a host an IP address for a specific server at a specific geo-location and correlating that IP address with a general request from a user for the IP address of a server providing the requested service (Parekh: column 5, lines 42-column 6, line 6) and modifying the DNS server response to match the general request (Alteon Fig. 2).

Regarding claim 40, receiving a DNS request from a user (Alteon Figs. 2-3); determining the geographical location of the user by determining the geographical location of the server used by the user (Parekh: (Parekh: column 5, lines 42-column 6, line 6); and altering the DNS request

from the user from a general request for an IP address of a server providing a desired service to a specific request for a server at a specific location (Alteon: right side of figure 2 of page 3, right side of Figure 3 on page 4, and page 12, He: manipulating to reflect (modifying) the response to reflect the optimum server selection, see left column p. 1172, selects for a user's DNS request through DNS redirection the best "optimum" server, see p. right column 1170, selects the best "optimum" location of a network service on the Internet according to the user's geo-location, that is the server closest to the user, see right column, p. 1171).

Regarding claim 41, configuring the hardware appliance with the code executable on a processor for performing the functions recited above (Alteon, p. 12-13).

Citation of Pertinent Art:

10. The following prior art made of record and not relied upon are considered pertinent to applicant's disclosure. Copies of Non-Patent Literature documents cited will be provided as set forth in MPEP§ 707.05(a):

US 6,415,323

McCanne et. al. Teaches a network node comprising a router, i.e. having at least two network interfaces connected to the network through which data packets are received and transmitted; capturing data packet, analyzing captured data packets; determining the requesting host's location and directing the requesting host to the optimum server.

US 6,829,654

Jungck teaches network node comprising a router, i.e. having at least two network interfaces connected to the network through which data packets are received and transmitted; capturing data packet, analyzing captured data packets; determining the requesting host's location and directing the requesting host request to the optimum server.

Cisco Distributed Director, Delgadillo, K., Cisco IOS Product Marketing, 1999, p. 1-19.

Cisco teaches transparently redirecting end-user service request to the closest server as determined by the client-server topological proximity, redirecting the client to the topological closest server, wherein an DNS response directs the client to the predetermined "best" server.

US 6,718,359

Zisapel disclose storing the association of geographical locations associated with IP addresses used for selecting the closest network service provided by a server to the geographical location of the user in response to a request from a user for a network service.

Response to Arguments

11. Regarding claims 1-13, 15-27 and 29-30 rejected under Alteon in view of He, it is argued (p. 13-14 of remarks) that the references do not teach claimed invention as recited. Specifically, does not "modify the actual DNS request to request a different IP address than originally requested by the user, because Alteon identifies, intercepts and automatically redirect DNS request, thus according to applicant, this is "distinct and altogether different from the process recited in the present claims".

In response to the above-mentioned argument, applicant's interpretation of the applied prior art has been reviewed and fully reconsidered. Applicant's attention is directed to the Alteon references which illustrates on the right side of figure 2 of page 3,

a subscriber sending a DNS request having a destination (DA) address labeled as IP DA=B thus the DNS request having an header destination IP Address = B is destine to a DNS Server having an IP address = B, this DNS request having a destination IP Address = B is received at the ISP Pop having the DNS Redirector mechanism, the corresponding DNS request leaving the DNS Redirector of the ISP PoP is illustrated as having a destination address labeled IP DA=A corresponding to an ISP's DNS server illustrated as having that IP address = A which receives the subscriber's DNS request and provides a response thereto.

Figure 3 on page 4 of the Alteon reference illustrates on the right side of figure 3, a subscriber sending a DNS request having a destination (DA) address labeled as IP DA=A thus the DNS request having an header destination IP Address = A is destine to a DNS Server having

an IP address = A, this DNS request having a destination IP Address = A is received at the ISP Pop having the DNS Redirector mechanism, the corresponding DNS request leaving the DNS Redirector of the ISP PoP is illustrated as having a destination address labeled IP DA=B corresponding to an ISP's DNS server illustrated as having that IP address = B which receives the subscriber's DNS request and provides a response thereto.

Alteon discloses that every incoming packet is examined to determine if it is a DNS request, if so, it determines which DNS server the packet should be sent and after this determination, the packet is manipulated so that the proper DNS server will receive it (see page 12).

Arguments that the claimed invention modifies the actual DNS request to request a different IP address than originally requested by the user, and the Alteon reference identifies, intercepts and automatically redirect DNS request, being this according to applicant, distinct and altogether different from the process recited in the present claims, are not persuasive.

12. Regarding claims 14 and 28 rejected as being unpatentable over Alteon in view of HE in further view of Macpherson, it is argued that (p. 16 of remarks) this reference fails to teach DNS packet modification.

In response to the above-mentioned argument, applicant seems to rely on the features of claims 1, 17, 31, 37 and 39 as argument for claims 14 and 28, thus same response to arguments presented for these claims are applicable. Dependent claims which by definition include all of the elements and limitations of the claims from which they depend (see MPEP 1.75c) are not patentable in view of the applied prior art of record. The Alteon references which illustrates on the right side of figure 2 of page 3, a subscriber sending a DNS request having a destination (DA) address labeled as IP DA=B thus the DNS request having an header destination IP Address = B is destine to a DNS Server having an IP address = B, this DNS request having a destination IP Address = B is received at the ISP Pop having the DNS Redirector mechanism, the corresponding DNS request leaving the DNS Redirector of the ISP PoP is illustrated as having a destination address labeled IP DA=A corresponding to an ISP's DNS server illustrated as having that IP address = A which receives the subscriber's DNS request and provides a response thereto. Figure 3 on page 4 of the Alteon reference illustrates on the right side of figure 3, a subscriber

sending a DNS request having a destination (DA) address labeled as IP DA=A thus the DNS request having an header destination IP Address = A is destine to a DNS Server having an IP address = A, this DNS request having a destination IP Address = A is received at the ISP Pop having the DNS Redirector mechanism, the corresponding DNS request leaving the DNS Redirector of the ISP PoP is illustrated as having a destination address labeled IP DA=B corresponding to an ISP's DNS server illustrated as having that IP address = B which receives the subscriber's DNS request and provides a response thereto. Alteon discloses that every incoming packet is examined to determine if it is a DNS request, if so, it determines which DNS server the packet should be sent and after this determination, the packet is manipulated so that the proper DNS server will receive it (see page 12).

Arguments that dependent claims 14 and 28 which by definition include all of the elements and limitations of the claims from which they depend are patentable in view of the applied prior art of record to independent claims and that the Macpherson reference does not teach DNS packet modification, are not persuasive.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to, this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Reply to a final rejection or action must include cancellation of, or appeal from the rejection of, each rejected claim. If any claim stands allowed, the reply to a final rejection or action must comply with any requirements or objections as to form (see 1.113). If prosecution in an application is closed, an applicant may request continued examination of the application by filing a submission and the fee set forth in § 1.17(e) prior to the earliest of: (c) A submission as used in this section includes, but is not limited to, an information disclosure statement, an amendment to the written description, claims, or drawings, new arguments, or new evidence in support of patentability. If reply to an Office action under 35 USC 132 is outstanding, the submission must meet the reply requirements of § 1.111 (see MPEP 706.07).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Thursday from 6:30 to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see http://pair-direct.uspto.gov or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

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(571) 273-8300 (New Central Fax No.)

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

B. Prieto **Primary Examiner** TC 2100 June 30, 2006

PRIMARY EXAMINER